



**CONESTOGA-ROVERS  
& ASSOCIATES**

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July 30, 2012

Reference No. 038443-15

Mr. Larry Silver  
Langsam Stevens Silver & Hollaender LLP  
1616 Walnut Street, Suite 1700  
Philadelphia, PA 19103

Dear Mr. Silver:

Re: Proposal for Environmental Investigation (Proposal)  
Dayton Power & Light (DP&L), Moraine, Ohio (Site)

Conestoga-Rovers & Associates' (CRA) is pleased to submit this scope of work to Langsam Stevens Silver & Hollaender LLP (LSSH). The purpose of the work is to complete near surface (i.e., overburden soils and shallow groundwater) environmental investigation activities at the Dayton Power & Light (DP&L) Site, located at 1900 Dryden Road, Moraine, Ohio (Site).

## **1.0 BACKGROUND**

In 2009 and 2010, CRA collected groundwater samples from vertical aquifer sampling (VAS) locations and monitoring wells (MWs) on the Site. The groundwater samples contained volatile organic compounds (VOCs) and metals at concentrations greater than United States Environmental Protection Agency (USEPA) Regional Screening Level (RSL) Maximum Contaminant Levels (MCLs). Benzene, ethylbenzene, toluene, xylenes (BTEX), arsenic and barium have been consistently detected in shallow groundwater samples collected from MWs located in the vicinity of DP&L's garage, located at the south end of the Site. cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride have been detected in shallow groundwater samples collected from VAS and MW locations across the Site. The groundwater samples also contained polycyclic aromatic hydrocarbons (PAHs) at concentrations greater than USEPA Tapwater criteria; there are no USEPA MCLs for PAHs.

Based on the information provided by LSSH, chemical use at the Site may have included use of degreasers, polychlorinated biphenyls (PCBs), and solvents. Historic activities at the Site may have included dumping of fly ash, bottom ash, and slag, painting, filtration of oil in Fuller's Earth, and waste pick-up and transportation of degreaser sludge and Fuller's Earth.

CRA completed an aerial photographic review of the Site, focused on the limit of ground disturbances and apparent landfilling. Filling on the DP&L property appears to have been



associated with the construction of the Service Center and Garage buildings and the excavation and filling of the northern portion of Parcel 1041, reportedly with fly ash.

The 1952 aerial photograph shows disturbed ground on Parcel 3061, and the southwestern portion of Parcel 1041. At that time, excavation activities and filling operations occurred on Parcel 1041 and the eastern portion of Parcel 3061. Construction of the DP&L facility is visible to the east of Dryden Road. By March 1956, construction of the DP&L facility was complete, and the facility appears to be operational. In March 1956, a large excavation located to the east of the DP&L service building occupied most of Parcel 1041. The southeastern portion of the excavation appears to be filled with water, while filling operations appear to be occurring in the northern and western portions. By 1968, the western portion of the surface impoundment on DP&L property had been filled to grade, though an area of standing water was still present in the eastern portion of the impoundment. The eastern portion of the surface impoundment was filled to grade by the early 1970s.

Stratigraphic logs from monitoring well installations and VAS borehole advancement, completed by DP&L and CRA confirm the presence of residual wastes (foundry sand, fly ash, slag, and black cinders), industrial solid waste (plastic) and construction and demolition debris (glass and brick) on DP&L property on Parcels 2941 and 3061 in the vicinity of the garage, and on Parcel 1041 in the area of the former surface impoundment. There is no evidence of municipal waste disposal in this area.

CRA reviewed available data from Environmental Data Resources, Inc. (EDR). A summary of the pertinent findings from the database search is provided below.

<i>Database</i>	<i>Database Information</i>	<i>Status</i>
Resource Conservation and Recovery Act (RCRA) database	Sites that generate, store, treat, or dispose of hazardous waste as defined by the Act	Small Quantity Generator.
Leaking Underground Storage Tank Incident Reports	Inventory of reported leaking underground storage tank incidents	Release Date: 4/24/89. Status: Corrective Actions in Progress.  Closure of Regulated UST 4/6/90. Status: No Further Action letter issued.



<i>Database</i>	<i>Database Information</i>	<i>Status</i>
Underground Storage Tank	Registered USTs, regulated under Subtitle 1 of RCRA	Fiberglass Reinforced Plastic, double-walled used oil-petroleum UST installed 05/01/1990 Status: Currently in Use.
PCB Activity Database (PAD)	Generators, transporters, commercial storers and/or brokers and disposers of PCBs	PAD ID Number: 1000416787.  No Additional Information provided.
Spills Database	All reported incidents, spills, or releases to the environment	Spill of wastewater, i.e., Noncontact cooling water, service water, of unknown quantity reported on 07/01/98. Affected waterway: Great Miami River. No Emergency Response.  Spill of wastewater of unknown quantity reported on 08/18/97. Affected waterway: Great Miami River. No Emergency Response.

In a deposition, Jim South stated that degreasers were used in the Transportation Department. The Transportation Department is presented as the garage on Figure 1. Jim South indicated 'crud' from the degreasing process might have gone to South Dayton Dump and Landfill Site. Degreasing equipment was identified in the Gas Operations Regulator Shop, Gas Meter and Measurement Department, and Transformer Repair Shop (see Figure 1).

DP&L filtered oils in "Fuller's Earth" inside the Oil House, located east of the Service Building (see Figure 1). Waste possibly containing Fuller's Earth and degreaser sludge were loaded onto dump trucks at the East Dock for off-Site disposal.



## **2.0 INVESTIGATION LOCATIONS**

CRA has proposed sampling to investigate potential areas of environmental impairment. CRA prepared this proposal based on previous Site investigation analytical results and information provided by LSSH.

CRA will advance 20 boreholes to estimated depths of 30 feet below ground surface (ft bgs) in areas of potential environmental concern (APECs) on Site. Figure 1 presents the approximate locations of the proposed boreholes.

The general objective of the Near Surface Investigation is to identify whether contaminants are present across the Site in overburden soils at concentrations greater than USEPA Industrial Soil RSLs and soil screening levels (SSLs) that are protective of groundwater, or present in the upper 5 ft of shallow groundwater and may be migrating off Site at concentrations greater than USEPA MCLs.

CRA will compare the results of samples collected to the USEPA RSLs. CRA will compare the results of soil samples to the USEPA Industrial Soil RSLs, and results of groundwater samples to the USEPA MCLs. Where no MCL value for an analyte is provided, CRA will compare the results of groundwater samples to the USEPA Tapwater criteria.

## **2.1 AREAS OF POTENTIAL ENVIRONMENTAL CONCERN**

The APECs at the Site identified by LSSH are listed in the table below. These APECs require further investigation to confirm whether or not they are contributing to environmental impacts at the Site.

<i>Area of Potential Environmental Concern</i>	<i>Known or Potential Impact</i>
Stores Department	Potential soil impact. Known cis-1,2-DCE and vinyl chloride groundwater impacts (MW-221)
West Dock	Potential soil impact due to use of degreasing equipment, solvents, and paints in the gas operations regulator shop, and gas meter and measurement department, located on the north end of the West Dock. cis-1,2-DCE and vinyl chloride groundwater impacts in monitoring wells located on the adjacent South Dayton Dump and Landfill property directly across from the West Dock.



<i>Area of Potential Environmental Concern</i>	<i>Known or Potential Impact</i>
Garage or Transportation Department	Potential soil impact. Known BTEX and metals groundwater impacts.
Oil House	Potential soil impact. Known cis-1,2-DCE and vinyl chloride groundwater impacts (MW-223A/B). Potential impacts due to presence of PCBs, and filtration of oil in Fuller's Earth in the building.
Transformer Repair Shop	Potential soil and groundwater impacts due to use of degreasers and paint guns
Fly Ash	Potential soil and groundwater impacts due to suspected location of fly ash, bottom ash, and slag dump. Location of Tait stations.
East Dock	Potential soil and groundwater impacts due to loading of waste, possibly including degreaser sludge and Fuller's Earth, used to filter oils.
Gas Operations Regulator Shop and Gas Meter and Measurement Department	Potential soil and groundwater impacts due to use of solvents, paint, and degreasing equipment.
Suspected historic location of Machine Shop	Potential soil and groundwater impacts.

## **2.2 DATA QUALITY OBJECTIVES**

There are seven steps in the Data Quality Objective (DQO) process<sup>1</sup>. A discussion of the DQO steps for the Shallow Groundwater Investigation is presented below.

**Step 1: State the Problem** – VOCs and metals are present in shallow groundwater beneath the Site. A data gap exists with respect to the source(s) of the VOCs and metals, specifically arsenic, barium, lead, manganese, and vanadium. Additional data gaps exist with respect to whether PCBs are present in shallow groundwater, and whether fly ash was dumped in the northeastern portion of the Site.

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<sup>1</sup> As detailed in the USEPA document *Guidance on Systematic Planning Using the Data Quality Objectives Process*. EPA QA/G-4, February 2006.



**Step 2: Identify the goals of the study** – Complete a screening level investigation to determine whether suspected contaminants are present in overburden soils and groundwater at concentrations greater than USEPA RSLs.

**Step 3: Identify information inputs** – Complete soil investigations using direct push technology to determine VOC, semi-volatile organic compound (SVOC), PCB, and metals concentrations in overburden soil at discrete locations across the Site. Complete groundwater investigations using direct push technology and low flow groundwater sampling to determine VOC, SVOC, PCB, and metal concentrations in shallow groundwater at discrete locations across the Site.

**Step 4: Identify the boundaries of the study** – The Study Area for the overburden soil and shallow groundwater investigation is the same as the Site boundaries, and is presented on Figure 1. CRA will advance twenty boreholes to estimated depths of 30 feet below ground surface (ft bgs) in areas of potential environmental concern on Site. Figure 1 presents the approximate locations of the proposed boreholes.

**Step 5: Develop the analytic approach** – Collect soil samples from each borehole from the interval exhibiting the greatest likelihood of contamination, based on visual/olfactory/photo-ionization detector (PID) readings. If no visual, olfactory or PID evidence of contamination is observed, CRA will collect two soil samples from a borehole, one surficial sample (0 to 2 ft bgs), and one sample from immediately above the water table.

Groundwater samples will be collected using low flow sampling techniques from the top 5 ft of shallow groundwater in each borehole, following purging and stabilization. The sample intake will be set at 2.5 ft below the water table. Samples will be collected using the sampling methodologies outlined in the FSP and relevant addenda. Soil and groundwater samples will be submitted for analysis of TCL VOCs, SVOCs, PCB, and TAL metals using the analytical methodologies outlined in the QAPP.

**Step 6: Specify Performance or Acceptance Criteria** – Performance criteria consist of identifying VOCs, SVOCs, PCBs, and metals that are greater than USEPA Industrial Soil RSLs USEPA MCL criteria for soil and groundwater samples, respectively. In cases where USEPA MCL values do not exist for an analyte, groundwater performance criteria will be USEPA Tapwater criteria.

**Step 7: Develop the plan for obtaining data** – See Sections 2.3 to 2.6 below, for detailed procedures proposed in order to obtain the required data.



## **2.3     PREPARATION**

Prior to initiating field activities, all applicable utility companies (gas, telephone, cable, hydro, water, and sewers) will be contacted to demarcate the location of their respective underground utilities to clear all borehole locations for underground services. CRA will also arrange for a private utility locator to provide underground utilities clearances at each of the proposed investigation locations. All utility locates will occur prior to the initiation of the subsurface investigation activities.

## **2.4     BOREHOLE ADVANCEMENT**

CRA will contact a licensed driller to advance boreholes at the Site. CRA will direct and supervise the drilling contractor. All boreholes will be completed using Geoprobe™ direct push drilling techniques. The proposed groundwater sampling locations are shown on Figure 1.

The drill rods, stainless steel screen, and associated drilling equipment will be decontaminated, prior to starting and between each borehole, using a high-pressure, high temperature, hot water cleaner. The drilling contractor will use an off-Site source of potable water, which is free of contamination. CRA previously collected a sample of the nearby potable water source for analysis of VOCs to verify the water quality. In the event of a change in the potable water source, CRA will collect a sample from the new source.

During borehole advancement, continuous soil cores will be retrieved to log soil stratigraphy, relative moisture content, and PID headspace readings (for undifferentiated VOCs). The soil cuttings will be drummed and sampled for disposal characterization.

Where field screening indicates evidence of contamination, CRA will test soils for the presence of non-aqueous phase liquids (NAPL) using a Sudan IV® dye test. Field calibration, preventative maintenance, and SOPs for the PID and Sudan IV® dye test are included in the FSP.

The specific interval selected for sampling will be determined in the field by the CRA field representative. Sample selection will be based on the visual appearance of the material (for example, color, staining, grain size, etc.), location of the material prior to removal (for examples, above the water table), and field instrument measurements (i.e., headspace readings using a PID). All olfactory evidence will be obtained taking care to limit exposure to any vapors and in accordance with the HASP. If no visual, olfactory or PID evidence of contamination is observed, CRA will collect two soil samples from a borehole, one surficial sample (0 to 2 ft bgs), and one sample from immediately above the water table. The sample collection procedures are identified in the Field Sampling Plan.





CRA will collect a minimum of one soil sample from each borehole during advancement and submit the samples for Target Compound List (TCL) VOC, SVOC, PCB, and Target Analyte List (TAL) metal analyses.

## **2.5 SHALLOW GROUNDWATER INVESTIGATION SAMPLE COLLECTION**

Following the field screening and logging of the soil stratigraphy at each borehole, the Geoprobe will be offset approximately 1-foot from the borehole to collect a groundwater sample while preventing drawdown. CRA proposes to use a Geoprobe Screen Point 16 (SP16) Groundwater Sampler. CRA will collect groundwater samples from the top 5 ft of shallow groundwater. The sampling intake will be set approximately 2.5 ft below the water table, with the top of the 41-inch stainless steel screen set approximately 0.8 ft below the water table in order for the sampling intake to be set at the midpoint of the screen. Groundwater samples will be collected through the stainless steel screen using a mechanical bladder pump set at a flow rate of 100 milliliters per minute (mL/min).

The flow rate for purging of groundwater will be dependent on the capacity of the mechanical bladder pump and the transmissivity of the aquifer material. Efforts will be made to maintain low flow during purging (i.e., 100 to 500 mL/min for purging). The minimum required water volume (i.e., three to five screen volumes) will be purged at the lowest sustainable flow rate. During the screen purging, field parameters such as pH, temperature, specific conductance, and turbidity will be monitored to evaluate the stabilization of the purged groundwater. The groundwater will be considered stable after a maximum of five well screen volumes are removed or when three successive readings for pH, specific conductance, temperature, and turbidity agree within the following limits:

- pH:  $\pm 0.1$  pH units
- Specific conductance:  $\pm 3$  percent (temperature corrected)
- Temperature:  $\pm 1.0$  °C
- Turbidity:  $\pm 10$  percent of the average value of the three readings, or a final value of less than 5 NTU

For sampling intervals where the nature of the formation substantially restricts the flow of water during purging, purging will continue for a maximum of two hours. Groundwater samples will be collected once the parameters have stabilized as detailed in the FSP, or once the maximum purging time has been reached. Groundwater samples will not be collected if attempts to purge and sample indicate the interval does not yield enough water to sample. If this occurs, the borehole location will be resituated, and another attempt to collect a groundwater sample will be made.





All shallow groundwater investigation samples will be analyzed for TCL VOCs, SVOCs, PCBs, and TAL metals.

## **2.6 QUALITY ASSURANCE / QUALITY CONTROL**

For quality control purposes, CRA will submit one field duplicate groundwater sample, and one groundwater field blank. CRA will also submit one trip blank sample per shipment for VOC analyses to assess the sample handling procedures. Such controls will help to validate the data, and ensure that proper field and laboratory procedures have been followed.

## **3.0 PROJECT SCHEDULE**

CRA will commence field work within three weeks of receipt of Respondents and USEPA approval, dependant on drilling subcontractor availability, and obtaining access to Site.

If any significant changes or modifications to the proposed scope of work presented herein are required, CRA will contact USEPA for approval prior to implementing the changes.

## **4.0 REPORTING**

CRA will submit the draft DP&L Environmental Investigation Report to Respondents and USEPA within 45 days of receipt of the final laboratory data report.

The draft DP&L Environmental Investigation Report will provide a summary of results from the near surface environmental investigation, and recommendations for further sampling, if necessary. CRA will finalize the Report following receipt of comments from the Respondents and USEPA.

## **5.0 ESTIMATED COST**

The approximate cost for CRA to complete the proposed investigation is \$57,900. The cost estimate is based on the proposed fieldwork detailed above, and will be completed on a time and materials basis. A breakdown of the estimated costs is presented in Tables 1 and 2.

CRA does not charge a premium for overtime, weekend, or holiday work necessary to meet project deadlines.



**CONESTOGA-ROVERS  
& ASSOCIATES**

July 30, 2012

10

Reference No. 038443-15

We appreciate the opportunity to submit this proposal to LSSH to complete investigative activities. Please contact the undersigned at (519) 884-0510 if you require further information or clarification.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Stephen M. Quigley

VC/sn/1

Encl.

cc: Paul Jack, Castle Bay  
Bryan Heath, NCR  
Karen Mignone, Verrill Dana  
Wray Blattner, Thompson Hine  
Adam Loney, CRA

Robin Lunn, Winston & Strawn  
Scott Blackhurst, Kelsey Hayes Company  
Jim Campbell, EMI  
Ken Brown, ITW

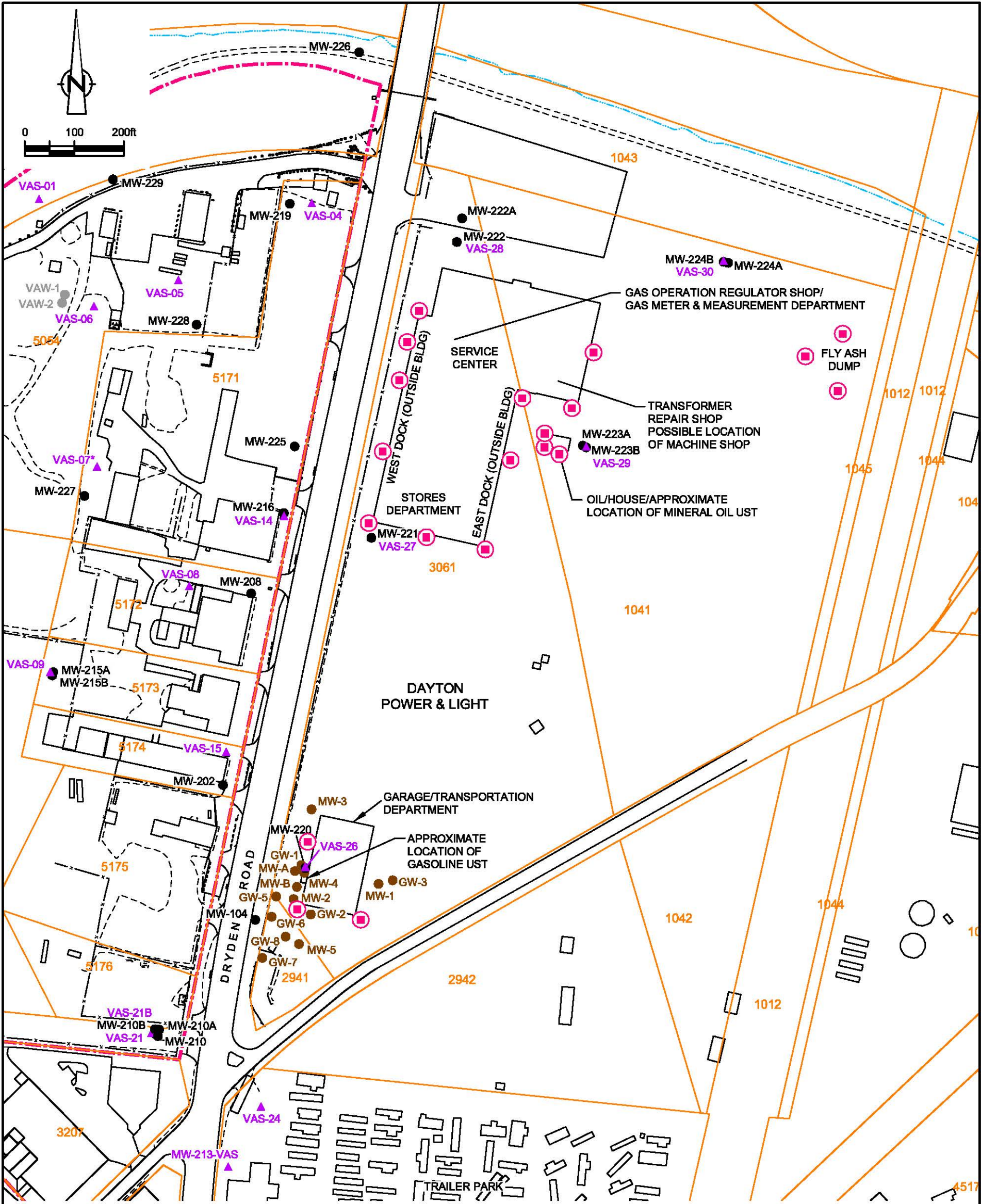


figure 1  
DAYTON POWER & LIGHT PROPOSED INVESTIGATIVE LOCATIONS  
SOUTH DAYTON DUMP AND LANDFILL SITE  
Moraine, Ohio



SOURCES:  
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;  
TETRA TECH EM INC., PROJECT L0812008-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;  
CITY OF MORAINES  
ABRAMS AERIAL SURVEY INC. PROJECT 38443, AASI 28810, 04/02/2008



TABLE 1  
PROPOSED DAYTON POWER LIGHT SCOPE OF WORK  
SOUTH DAYTON DUMP AND LANDFILL  
MORaine, OHIO

Area	Existing Investigative Locations		Known Contaminants	DP&L activities	Proposed Investigation Scope	Proposed Investigation Locations	Cost Estimate	
	VAS	Monitoring						
Stores Department / Service Building	VAS-27	MW-221	Arsenic, Lead cis-1,2-DCE, VC, methylene chloride, PAHs <sup>[1]</sup>		1. Sample MW-221, MW-223A, MW-223B for PCBs analyses.  2. Advance boreholes using Geoprobe direct push drilling techniques to the depth of the top 5 ft. of the water table. Collect continuous soil cores to log soil stratigraphy. Screen soil cores with PID for the presence of VOCs. Collect one soil sample from each borehole from the interval of greatest impact, based on PID field readings, visual, or olfactory impact.	1. Three BH locations west, southwest, and southeast of Transportation Department (aka Garage)	Analytical Costs	\$23,100
West Dock	VAS-14 (SDDL)	MW-216 (SDDL) MW-225 (SDDL)	cis-1,2-DCE, VC fly ash	Gas Operations Regulator Shop and Gas Meter and Measurement Department located on the north end of the West Dock		2. Three BH locations within Fly Ash dump area	Drilling Subcontractor	\$10,700
East Dock	--	--		Waste picked up at East Dock may have included Fuller's Earth and degreaser sludge. Underground cable department is located on the East Dock, right behind the Oil House		3. One BH location northeast, of suspected location of Machine Shop. Proposed location also serves to investigate Transformer Repair Shop.	CRA Fees (including reporting) <sup>[2]</sup>	\$20,000
Transportation Department	VAS-26	MW-220, MW-1 to MW-5, MW-A, MW-B, GW-1 to GW-8	Benzene, Ethylbenzene, cis-1,2-DCE, VC, Naphthalene <sup>[1]</sup> , Arsenic, Barium, Lead alpha-BHC (GW-6), Manganese <sup>[1]</sup> ,	use of degreasers. Resultant degreaser sludge may have been dumped at SDDL	Submit soil and temporary GW MW samples for VOC, SVOC, PCB, and metals analyses.  Submission of GW field duplicates, field blanks, and trip blanks.	4. Two BH locations southwest and southeast of suspected location of Machine Shop. Proposed location also serves to investigate Transformer Repair Shop, East Dock, and Stores Department.	Disbursements	\$4,100
Oil House	VAS-29	MW-223A / B	cis-1,2-DCE, VC, Arsenic, Lead	PCBs Oils were filtered in Fuller's Earth. East wall of oil house was 'cleaned out'		5. Three BH locations south of Stores Department. Proposed locations also serves to investigate East and West Docks.	<b>TOTAL</b>	<b>\$57,900</b>
Transformer Repair Shop	--	--		Paint guns, degreasers				
Machine Shop	--	--				6. Three BH locations northwest, west and southwest of Oil House. (MW-223A/B serve as GW investigative locations east of the Oil House).		
Fly Ash Dump	--	--		Tait Stations, fly ash, bottom ash, slag				
Gas Operations Regulator Shop	VAS-28 (north)	MW-222, MW-222A (north)	Arsenic, Lead, VC	degreasing equipment, solvent usage, painting		7. Five BH locations along West Dock. Proposed locations also serve to investigate Gas Meter & Measurement Department, and Stores Department.		
Gas Meter & Measurement Department	VAS-28 (north)	MW-222, MW-222A (north)	Arsenic, Lead, VC	degreasing equipment, solvent usage, painting		8. Collect one GW sample from each temporary BH.		
Possible Location of Machine Shop	--	--						
Parking lot	VAS-30	MW-224A / B	no MCL exceedances. fly ash and slag					

Notes

[1] - There is no corresponding USEPA Regional Screening Level (RSL) Maximum Contaminant Level (MCL) criteria; parameter exceeds USEPA RSL Tapwater criteria.  
[2] - CRA's estimated labor costs are for completion of proposed scope only, and do not account for effort required to receive USEPA approval or address USEPA comments. Additional CRA labor charges above the cost estimate amount will be invoiced for effort required to address USEPA concerns.  
Drilling estimate prepared assuming drilling to a depth of 30 feet below ground surface (ft bgs)  
See 'Cost Estimate - Detailed' worksheet for breakdown of proposed investigation costs

TABLE 2

**COST ESTIMATE FOR DAYTON POWER LIGHT  
INVESTIGATION  
SOUTH DAYTON DUMP AND LANDFILL  
MORaine, OHIO**

<i>Task</i>		<i>Quantity</i>	<i>Units</i>	<i>Parameter</i>	<i>Unit Cost</i>	<i>Total Cost</i>
Near Surface Environmental Sampling	<u><i>Sampling Field Equipment</i></u>	3	Daily	Bladder Pump / Peristaltic Pump	\$65.00	\$195
		735	ft	1/4" Teflon Tubing	\$1.80	\$1,323
		3	Daily	Horiba	\$65.00	\$195
			Weekly	YSI pH and temp meter 50'	\$55.00	\$0
			Weekly	HF Scientific DRT-15CE Turbidimeter	\$55.00	\$0
			Case	Sudan IV Dye Test kits	\$400.00	\$0
			Weekly	GEM Landtec 2000 monitor	\$200.00	\$0
		3	Daily	PID	\$55.00	\$165
		3	Daily	Misc. Field equipment	\$75.00	\$225
		<b>Sampling Field Equipment Costs</b>				<b>\$2,103.00</b>
	<u><i>Drilling Subcontractor</i></u>	3	Days	2 man crew and equipment	\$2,000.00	\$6,000
			Days	PPE Level C upgrade (per person)	\$80.00	\$0
			Inches	Concrete Coring (up to 12 inches thick)	\$10.00	\$0
		2	Nights	Accommodation	\$120.00	\$240
		6	Daily	Per Diem	\$35.00	\$210
		360	Miles	Mileage	\$0.26	\$94
		4	Hours	Mobilization / Demobilization	\$140.00	\$560
		10	Each	Drums	\$60.00	\$600
		50	Bags	Bentonite Chips	\$20.00	\$1,000
		630	ft	Double cased tubing	\$1.20	\$756
		21	Each	SP 16 Expendable Points	\$9.50	\$200
		<b>Drilling Subcontractor Costs</b>				<b>\$9,659.10</b>
<u><i>Labor For Sampling</i></u>		84	Hourly	Field Tech labor	\$110.00	\$9,240
		12	Hourly	Field Tech travel (Ohio)	\$110.00	\$1,320
		0	Hourly	Geologist/Hydrogeologist (Level C)	\$120.00	\$0
		5	Hourly	Project Coordination (Engineer B2)	\$110.00	\$550
		1	Hourly	Project Management (Engineer E)	\$170.00	\$170
		1	Hourly	Project Management (Principal F)	\$190.00	\$190
		0	Hourly	Drafting / CADD	\$90.00	\$0
		2	Hourly	Office Support	\$60.00	\$120
		1	Hourly	Chemist Data Validation / lab order	\$120.00	\$120
		0	Hourly	Senior Chemist	\$170.00	\$0
		106	Hourly	I.T Charges	\$3.50	\$371
		<b>Sampling Labor Costs</b>				<b>\$12,081.00</b>

TABLE 2

**COST ESTIMATE FOR DAYTON POWER LIGHT  
INVESTIGATION  
SOUTH DAYTON DUMP AND LANDFILL  
MORaine, OHIO**

Task		Quantity	Units	Parameter	Unit Cost	Total Cost		
	<u>Expenses</u>	0	km	Mileage	\$0.57	\$0.00		
	<u>Travel</u>	210	km	Mileage Company Vehicles	\$0.26	\$54.60		
		0	Daily	Accomodation	\$120.00	\$0.00		
		6	Daily	Per Diem	\$35.00	\$210.00		
		0	weekly	CRA Truck	\$350.00	\$0.00		
		3	Daily	CRA Truck	\$85.00	\$255.00		
	<u>Telephone</u>	6	Daily	Cell Phone	\$10.00	\$60.00		
		2	Daily	Telephone (CAD)	\$10	\$20.00		
	<u>Misc</u>	3	Daily	Fed-Ex Shipping Charges	\$115.00	\$345		
		1	Lump Sum	Private utility locate	\$1,000.00	\$1,000		
		50	Each	Photocopies (CAD & US)	\$0.14	\$7.00		
	Expenses Total					\$1,951.60		
	Analytical	<u>Laboratory Costs</u>	GW	24	Each	TCL VOCs	\$75	\$1,800
				23	Each	TCL SVOCs	\$171	\$3,933
				26	Each	TCL PCBs	\$57	\$1,482
			23	Each	TCL Metals	\$127	\$2,921	
Soil			26	Each	TCL VOCs	\$75	\$1,950	
			25	Each	TCL SVOCs	\$171	\$4,275	
			25	Each	TCL PCBs	\$57	\$1,425	
			25	Each	TCL Metals	\$127	\$3,175	
Laboratory Analysis Total					\$20,961			
<u>Analytical Labor Costs</u>			16	Hourly	Chemist Data Validation	\$120.00	\$1,920	
			0	Hourly	Senior Chemist	\$170.00	\$0	
			3	Hourly	Project Management (Engineer B2)	\$110.00	\$330	
			19	Hourly	I.T Charges	\$3.50	\$67	
Labor Costs					\$2,316.50			

TABLE 2

**COST ESTIMATE FOR DAYTON POWER LIGHT  
INVESTIGATION  
SOUTH DAYTON DUMP AND LANDFILL  
MORaine, OHIO**

<i>Task</i>		<i>Quantity</i>	<i>Units</i>	<i>Parameter</i>	<i>Unit Cost</i>	<i>Total Cost</i>
Reporting / Project Management	<u>Reporting</u>	3	Hourly	Field Tech labor	\$110.00	\$330
		0	Hourly	Field Tech travel (Ohio)	\$110.00	\$0
		0	Hourly	Geologist/Hydrogeologist (Level C)	\$120.00	\$0
		25	Hourly	Project Management (Engineer B2)	\$110.00	\$2,750
		6	Hourly	Project Management (Engineer E)	\$170.00	\$1,020
		3	Hourly	Project Management (Principal F)	\$190.00	\$570
		6	Hourly	Drafting / CADD / Database	\$90.00	\$540
		3	Hourly	Office Support	\$60.00	\$180
		0	Hourly	Chemist Data Validation	\$120.00	\$0
		0	Hourly	Senior Chemist	\$170.00	\$0
		46	Hourly	I.T Charges	\$3.50	\$161
		<b>Labor Costs</b>				<b>\$5,551.00</b>

**Note:**

\* - Tool Kit, first aid kit, nitrile gloves

Sampling consists of 20 boreholes advanced to an estimated depth of 30 ft bgs.